You are working for a company that is building various card games (e.g. Blackjack, Poker) for an online casino. Design the set of classes and interfaces that you would need to implement the functionality of a generic card game, including method signatures and member variables. Please state any assumptions you are making.

You do not need to create any concrete game implementations.

**Game** {

*numberOfPlayers*: int; // number of Players

*cardsPerHand*: int; // number of Cards in hand

*players:* Array of Player objects

*initialize(numberofPlayers, cardsPerHand)*: function; // initializes Game with args

*deal():* function; // deals Cards to Players in their Hands based on the rules of the Game using Deck.draw(cardsPerHand)

}

((BlackJack, Poker, etc could then be classes that inherit from Game but have specific methods to their Rules like: hit, stay, etc))

**Deck** {

*cards*: Array of Card objects; // Card objects in play

*initialize()*: function; // initialize a Deck of 52 Card objects with unique values of permutations of value/suit

*shuffle():* function; // randomly arranges Deck

*draw(numberOfCards)*: function; // pop top numberofCards (default=1) Card object(s) from cards

}

**Card** {

*value*: string; // ['1', '2', '3', '4', '5', '6', '7', '8', '9', '10', 'J', 'Q', 'K', 'A']

*suit*: string; // ['D', 'H', 'S', 'C']

*initialize(value, suit);* function; // initialize a Card with a value and suit

}

**Hand** {

*cards*: Array of Card objects; // number determined by rules of Game

*draw(numberOfCards)*: function; // pop top numberofCards (default=1) Card object(s) from cards

*discard(Card)*: function; // remove and return Card from cards

}

**Player** {

*hand*: Hand object;

}